Rob DeVoto

CIS 410-50

2/10/2023

BAE Automated Systems – Denver Airport Case Study

BAE should continue working on the project and produce an automated baggage delivery system as they were contracted to do. Any other alternative would cause a huge risk for the company as they would suffer from the poor reputation due to the colossal failure of this project. By completing the project, BAE could save what is left of their reputation as well as potentially avoid litigation for failure to deliver on a contact. With the right marketing they could turn this into a success story.

The business issue of this case study is the lack of controls in place to increase the likelihood of a positive outcome of the project. Because of the lack of controls the project went awry and a lack of communication to fix the issues was too much to overcome, leading to the failure of the project. BAE was given assurances that they would have unrestricted access to work areas when they needed it.

They defined freeze deadlines on when changes could be made to the designs of the automated baggage system. These deadlines were not recognized, and many changes were requested by the airlines far beyond the deadlines.

BAE was contracted to build a state of the art baggage delivery system for the new Denver airport. While the technology that was to be used for the project had been implemented before in other projects, it had never been used in a project as large or as complex as would be needed for the Denver airport. This would lead to many challenges in building the system. In fact, BAE, who was only originally contracted to build a baggage system for United Airlines, did not even put in a bid for the full airport contract. The City of Denver, who was leading the airport project, actually approached BAE to take on the project after only three underwhelming bids for the project were submitted. After receiving the aforementioned assurances, BAE accepted the contract to build the entire system for the airport.

The generic strategy for BAE is a focus strategy. Their goal is to be better at their job than others in the industry. This would make them the desirable hire for any project. In the case of the Denver airport baggage project, BAE got the contract not only because they were good at what they do,

but also due to the fact that they had already started designing a system for United Airlines. As stated above, the Denver Airport project did not have good options for the baggage delivery system due to few satisfactory bids. BAE was the best option due to their experience and already contracted airport work. They would just need to expand their United Airlines project to the whole airport.

In reference to Porter's Five Forces, there was not a lot of competitive rivalry for BAE. They specialized in airport equipment. Other firms existed but BAE was known for being very good. The threat of new entrants was low. There are many airports that need systems but there is a limited market. For the Denver Airport project there was a threat of substitute when referring to what type of system would be used to deliver the airports luggage. The main alternative would be the classic system which uses a lot of manpower, tugs, and carts to drive the luggage to its necessary location. BAE was interested in building an automated system of conveyors and sensors thus reducing the amount of manpower, tugs, and traditional luggage carts needed.

The bargaining power of suppliers may have been low. The bargaining power of clients should have been low due to the agreements set up in the contract but those did not come to fruition. The clients ended up ignoring the agreement by requesting changes long after the freeze deadlines.

The organizational structure of the entire Denver airport project was a mess. There were many groups who had their hand in the project, both private and municipal. There were many groups who financed this project. This project was also a public works project which led to many challenges in order to follow public works guidelines and restrictions. Issues with the organizational structure were recognized early on as there was a duplication of work occurring between the two main leaders of the project, the City of Denver and the consultant team. To solve this problem the duties of each entity was outlined to improve the efficiency of the project.

There were further complications with the organizational structure of the project as it was split up into many different, smaller areas to make the work more manageable. Unfortunately, these groups did not communicate very well. An example of this is the trouble they had keeping track of changes. There was originally not a uniform system for each group to follow and it took 3 years to implement a common method. In a project of such a large scale, the milestones and tasks of work groups intertwined, and good communication was key to the project's success.

BAE is one stakeholder group as they are the ones contracted to complete the project. The city of Denver is a stakeholder as the airport is being built for them. The community is a stakeholder as there was a focus on hiring local contractors to complete the work on the airport. The airlines who would be using the airport, especially those contracted as using the airport as a hub are another stakeholder.

The first alternative that could be implemented would be for BAE to cancel the contract. This approach would bring on litigation from many fronts, especially the city of Denver. This solution would cause their reputation to take a big hit, one that was on the ropes as it was. BAE would also lose a lot of money from the contract along with the money and resources required for the impending court cases that would result.

A second alternative would be to finish the project. The firm was already trying to gain public support and despite the large task, finishing the project would go a long way in saving their reputation. There would have to be new agreements and promises in order to fix the problems but it would be doable. BAE has the expertise for the job.

A third alternative would be to reduce the size of the system as well as its complexity. The technology had been used before, just not in such a grand and complex system as for the Denver airport. BAE was originally contracted only by United Airlines to build their automated baggage system.

The requirements for this smaller project would be more manageable. This alternative would require the rest of the airline to find an alternative method to deliver luggage for the other carriers. This alternative could also lead to litigation as the other airlines may sue BAE.

A fourth alternative would be to scrap the large and complex automated baggage delivery system and build more of a traditional system. This could be done quicker and at a lower cost.

My choice would be to get the funding and support to finish the project. This would give BAE the opportunity to save their reputation. They have the expertise to finish the job. With the rest of the airport completed or mostly completed there would be less obstacles to overcome, such as the ones that plagued BAE's part of the project. BAE would likely have the unrestricted access to the worksite as they were originally promised. They could also contract to enforce the freeze deadlines which were previously ignored by their customers. This would improve their likelihood of fixing the system. It would require time and money. A backup system could be used in the meantime as was recommended by the consulting firm Logplan. This choice would be the best alternative to avoid potentially catastrophic litigation also.

The alternative to cancel the project would be a bad idea due to the hit their reputation would take. It would potentially end the organization as competitors could seize the opportunity to take market share. This would also almost certainly lead to litigation. But in this case, BAE may actually have a case in court. The assurances they were given to complete the project were not realized, which contributed to the failure of the project. BAE, prior to the project, expressed concerns of the project deadline stating that they would need an additional year to ensure a good, operating system but the city of Denver overlooked this and went with their already schedule deadline for completion.

Reducing the size and complexity of the project is an option but this could cause complications with the airport and the other airlines who would be on a separate baggage delivery system. It may be

beneficial for the entire airport to be on the same system. This could also lead to litigation from certain airlines or the city.

Scrapping the automated system and replacing it with the traditional system is also an unfavorable solution. While it is a time tested system, it would not likely be able to keep up with the demand expected at the highly trafficked airport. This was the reason for the need or want of the automated system. Implementing the traditional system would likely lead to flight delays at the airport, leading to unhappy customers and potentially the loss of business.